



iMac Intel 21.5" EMC 2889 Teardown

iMac Intel 21.5" EMC 2889 Teardown on October 14, 2015.

Written By: Sam Lionheart



INTRODUCTION

It's mid-October and great weather for Apple picking! We've been eager to sink our teeth into a new Mac, so we've brought home a fresh, locally-sourced refresh of the 21.5" iMac: the iMac Intel 21.5" EMC 2889. What's inside this juicy new device? Let's find out. It's teardown time!

Looking for this iMac's pixel-packed twin? Check out our teardown of the [iMac Intel 21.5" Retina 4K Display](#).

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TOOLS:

- [iMac Opening Tool](#) (1)
 - [T5 Torx Screwdriver](#) (1)
 - [T10 Torx Screwdriver](#) (1)
 - [Spudger](#) (1)
 - [iMac Service Wedge](#) (1)
 - [T8 Torx Screwdriver](#) (1)
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Step 1 — iMac Intel 21.5" EMC 2889 Teardown



- The 2015 edition of the 21.5" iMac has some newfangled specs:
 - 1.6 GHz dual-core or 2.8GHz quad-core Intel Core i5
 - 8 GB (4x2 GB) of 1867 MHz LPDDR3 RAM (Configurable to 16GB)
 - Intel HD Graphics 6000 or Intel Iris Pro Graphics 6200
 - 1 TB (5400-rpm) hard drive, configurable up to 1 TB Fusion Drive or 256 GB of flash storage.
 - 802.11ac Wi-Fi + Bluetooth 4.0

 More on those accessories later...

Step 2



- As tempted as we are to play with the new Magic things, we briefly turn our attention to the [port side](#) rear of this refreshed iMac.
- The ports on the rear: headphone jack, SD card slot, four USB 3.0, two Thunderbolt 2, and gigabit ethernet.
- This iteration iMac keeps the standard 21.5" model number, A1418 but adopts a new EMC number: 2889.

Step 3



- Thanks to our specially designed [iMac service wedge](#), opening is a breeze. The wedge keeps the hinge solid while you work—no flop, no slop.
- Nope, there's no [pizza](#) here folks. We're just using our handy iMac opening tool to cut the display adhesive. We're on a roll!
- Just as with the [previous generation](#), the display cables on the new iMac keep the opening procedure from being totally painless.


Step 4



- The multi-talented iMac opening tool helps us slice away the last of the adhesive.
- [We have separation](#)—and the display's away!
- Time to see what this machine is really packing...

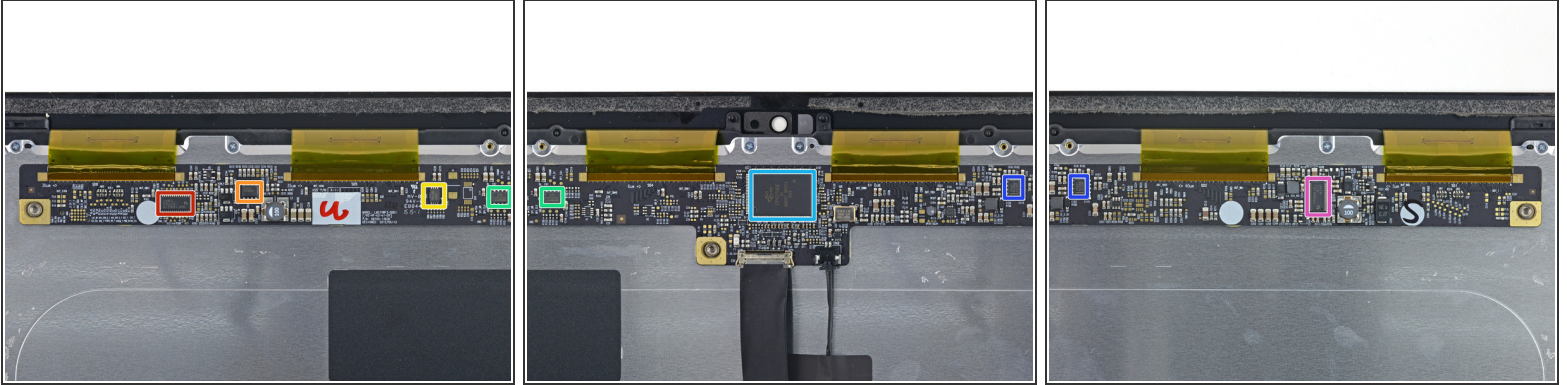
Step 5



 Once [again](#), this high resolution display is brought to you by LG.

- A few turns of the old screwdriver shows us the first glimpse of the good stuff.

Step 6



- Like previous iterations, this iMac display gets its own full set of control hardware:
 - Texas Instruments [BUF16821](#) Programmable Gamma-Voltage Generator
 - Richtek [RT8250](#) Synchronous Step-Down Converter
 - ST Microelectronics 404RP K516
 - Winbond [W25X20CL](#) 2 Mb Serial NOR Flash Memory
 - Parade [DP627HDE](#) DisplayPort LCD timing controller
 - Texas Instruments [TPS54231](#) Step-Down Converter
 - Texas Instruments [TPS65161](#) Bias Power Supply for TFT LCD Panels

Step 7



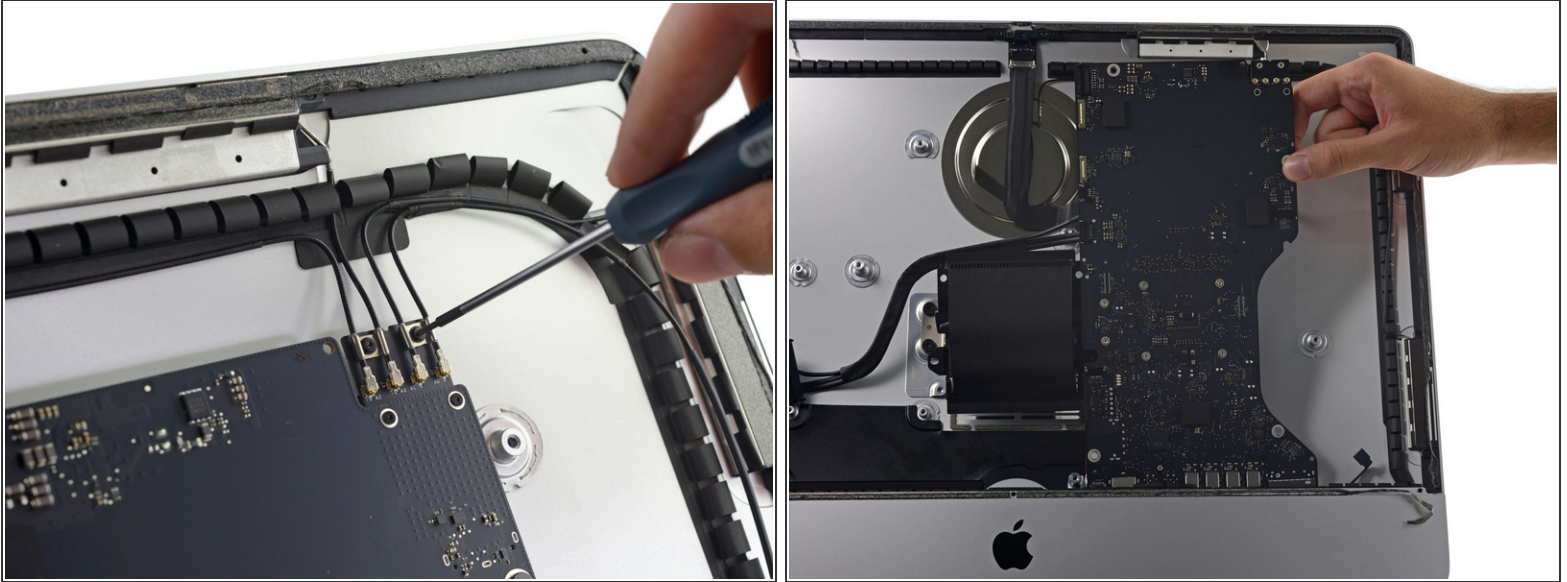
- Are we lost in time or are does this look exactly the same as last year's 21.5" iMac?

❗ Answer: Time travel has not been invented *yet*.

- 🚩 Despite the similar appearance, the Fusion Drive in this model has a [significantly](#) smaller flash partition than the previous generation.

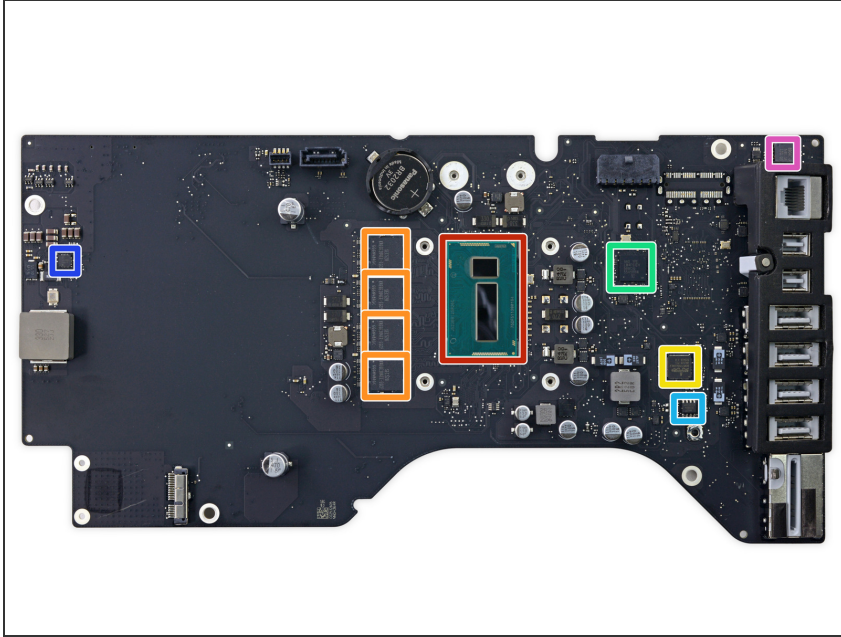
- We've yet to see something new or interesting here—if you're really itching to see how the [speakers](#), [hard drive](#), and [fan](#) come out, check our [previous gen](#) guides for details!

Step 8



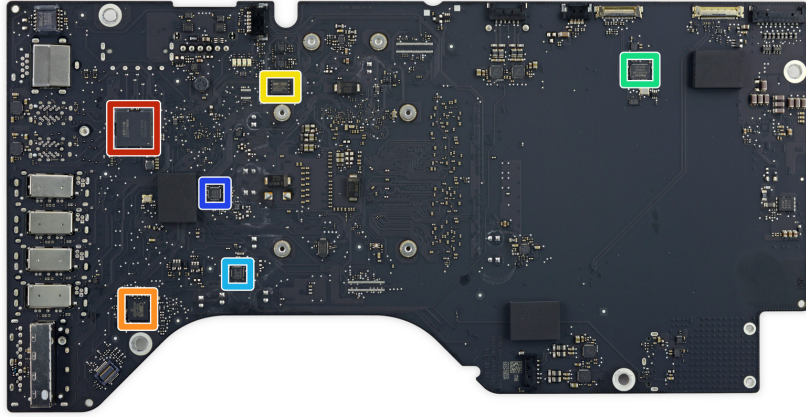
- Our breakneck advance on the logic board is stymied by a bit of novelty!
- The antenna cables are now fastened to the AirPort card with new screw-secured cable clamps.
- AirPort card released, the logic board is free to be wriggled out of the rear case.

Step 9



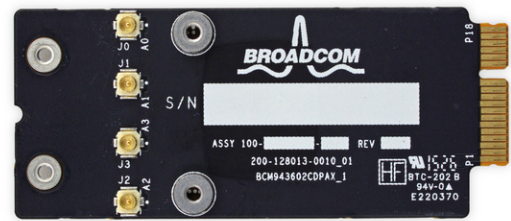
- Next up—the logic board:
 - Intel [SR26C](#) Core i5-5250U 1.6 GHz Processor (3M Cache, TurboBoost up to 2.70 GHz) with Intel HD Graphics 6000
 - Samsung [K4E6E304EE-EGCF](#) 16 Gb LPDDR3 1867 MHz SDRAM (4 chips for a total of 8 GB)
 - Broadcom BCM5776 Gigabit Ethernet Controller
 - Texas Instruments [LM4FS1EH](#) SMC Controller
 - Adesto [AT45DB021E](#) 2 Mb SPI Serial Flash Memory
 - National Semiconductor 545AR6SU
 - Delta 8904C-F Filter

Step 10



- Intel [DSL5520](#) Thunderbolt 2 Controller
- Cirrus Logic 4208-CRZ Audio Controller
- Macronix [MX25L6473E](#) 64 Mb Serial Multi I/O Flash Memory
- Vimicro [VC0359](#) Camera Processor
- Intersil [ISL62383CHRTZ](#) Power Supply Controller
- Intersil ISL95826

Step 11



- We also take the time to remove the AirPort card, but it's more of the same ol', same ol'.
- See the [2013 teardown](#) for details on this bad boy if you really gotta know.

Step 12



REPAIRABILITY SCORE:



- iMac 21.5" EMC 2889 Repairability Score: **1 out of 10** (10 is easiest to repair)
 - Cutting the tape to open the iMac isn't too difficult with the right tools, but it must then be replaced to complete any repair.
 - The RAM is still soldered to the logic board—you're stuck with what you bought.
 - The Fusion Drive connector is again missing from the logic board, killing all hope of storage hacking.
 - The CPU is soldered to the logic board, and cannot be replaced or upgraded.
 - The glass and LCD are fused together, increasing the cost of replacement.

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